

UNCLASSIFIED



TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

DoD Modeling and Simulation Conference Executives' Panel

11 March 2008

Dr. Forrest Crain

UNCLASSIFIED

Report Documentation Page

*Form Approved
OMB No. 0704-0188*

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE 11 MAR 2008	2. REPORT TYPE N/A	3. DATES COVERED -
4. TITLE AND SUBTITLE What Policies/Programs Do We Need in the M&S Vision		
5a. CONTRACT NUMBER		
5b. GRANT NUMBER		
5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)		
5d. PROJECT NUMBER		
5e. TASK NUMBER		
5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) RDECOM		
8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		
10. SPONSOR/MONITOR'S ACRONYM(S)		
11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release, distribution unlimited		
13. SUPPLEMENTARY NOTES 2008 DoD M&S (Modeling and Simulation) Conference Presentations held in Orlando, Florida on March 10 - 14, 2008, The original document contains color images.		
14. ABSTRACT		
15. SUBJECT TERMS		
16. SECURITY CLASSIFICATION OF:		
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified
17. LIMITATION OF ABSTRACT UU		
18. NUMBER OF PAGES 11		
19a. NAME OF RESPONSIBLE PERSON		

What Policies/Programs Do We Need in the M&S Vision

~~For 2020~~
In 12 years



VISION

- **Provide readily available, operationally valid environments for use by the DoD Components:**
 - To train jointly, develop doctrine and tactics, formulate operational plans, and assess warfighting situations.
 - To support technology assessment, system upgrade, prototype and full-scale development, and force structuring.
- Common use of these environments will promote a closer interaction between the operations and acquisition communities in carrying out their respective responsibilities. To allow maximum utility and flexibility, these modeling and simulation environments will be constructed from affordable, reusable components interoperating through an open systems architecture.

OBJs

1. Common Technical Framework
2. Authoritative Representation Natural Environment
3. Authoritative Representation Systems
4. Authoritative Representation Human Behavior
5. Infrastructure to Meet Developer and End-User Needs
6. Share the Benefits

DoD M&S Master Plan, October 1995

TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

VISION

- Empower DoD with modeling and simulation capabilities that effectively and efficiently support the full spectrum of the Department's activities and operations.
- A robust modeling and simulation (M&S) capability enables the Department to more effectively meet its operational and support objectives across the diverse activities of the services, combatant commands, and agencies. A defense-wide M&S management process encourages collaboration and facilitates the sharing of data across DoD components, while promoting interactions between DoD and other government agencies, international partners, industry, and academia.

Goals

1. Standards, architectures, networks and environments
2. Policies at the enterprise level
3. Management processes for models, simulations and data
4. Tools in the form of models, simulations, and authoritative data
5. People

DoD Memo: Strategic Vision for DoD Modeling and Simulation, 24 AUG 2007

1996

VISION

- Provide readily available, operationally valid environments for use by the DoD Components:
 - To train jointly, develop doctrine and tactics, formulate operational plans, and assess warfighting situations.
 - To support technology assessment, system upgrade, prototype and full-scale development, and force structuring.
- Common use of these environments will promote a closer interaction between the operations and acquisition communities in carrying out their respective responsibilities. To allow maximum utility and flexibility, these modeling and simulation environments will be constructed from affordable, reusable components interoperate through an open systems architecture.

1. Common Technical Framework
2. Authoritative Representation Natural Environment
3. Authoritative Representation Systems
4. Authoritative Representation Human Behavior
5. Infrastructure to Meet Developer and End-User Needs
6. Share the Benefits

DoD M&S Master Plan, October 1995

TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

2008

VISION

- Empower DoD with modeling and simulation capabilities that effectively and efficiently support the full spectrum of the Department's activities and operations.
- A robust modeling and simulation (M&S) capability enables the Department to more effectively meet its operational and support objectives across the diverse activities of the services, combatant commands, and agencies. A defense-wide M&S management process encourages collaboration and facilitates the sharing of data across DoD components, while promoting interactions between DoD and other government agencies, international partners, industry, and academia.

1. Standards, architectures, networks and environments
2. Policies at the enterprise level
3. Management processes for models, simulations and data
4. Tools in the form of models, simulations, and authoritative data
5. People

DoD Memo: Strategic Vision for DoD Modeling and Simulation, 24 AUG 2007

TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

WHAT'S COMMON

A LOT – in general

WHAT'S NOT

- More General – More WHAT not HOW
- Limit proprietary restrictions
- Make capabilities, limitations and assumptions easily available

From 1996 to 2008: A move towards the Broad vs the Specific

TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

VISION

- Empower DoD with modeling and simulation capabilities that effectively and efficiently support the full spectrum of the Department's activities and operations.
- A robust modeling and simulation (M&S) capability enables the Department to more effectively meet its operational and support objectives across the diverse activities of the services, combatant commands, and agencies. A defense-wide M&S management process encourages collaboration and facilitates the sharing of data across DoD components, while promoting interactions between DoD and other government agencies, international partners, industry, and academia.

Goals

1. Standards, architectures, networks and environments
2. Policies at the enterprise level
3. Management processes for models, simulations and data
4. Tools in the form of models, simulations, and authoritative data
5. People

DoD Memo: Strategic Vision for DoD Modeling and Simulation, 24 AUG 2007

TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

4

VISION**OBJS**

Strategic Vision for DoD Modeling and Simulation 2020, TBP

TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

8

WHAT'S COMMON

A LOT – in general

WHAT'S NOT

- General/Specific – WHAT and some HOW
- Retains “enduring” themes
- Inclusion of Focused Areas where M&S Capability Gaps exist (maybe even now)

From 2008 to 2020: Retains the Broad with Selective Specifics

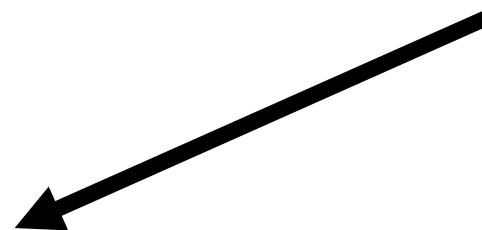
TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

VISION

- **Provide M & S capabilities that effectively and efficiently support the Preparation and Prosecution of National Defense.**
 - Collaboration
 - Reuse
 - Authoritative M&S and data

OBJs

1. Standards
2. Policies
3. Tools
4. Data
5. People



6. Focus Areas
 - Irregular Warfare
 - Disaster Relief
 - Model Ready Data & Data Ready Models
 - ???

Strategic Vision for DoD Modeling and Simulation 2020, TBP**TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.**

BACKUP

VISION**OBJs****Strategic Vision for DoD Modeling and Simulation 2020, TBP****TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.**

VISION

- **Provide readily available, operationally valid environments for use by the DoD Components:**
 - To train jointly, develop doctrine and tactics, formulate operational plans, and assess warfighting situations.
 - To support technology assessment, system upgrade, prototype and full-scale development, and force structuring.
- **Common use of these environments will promote a closer interaction between the operations and acquisition communities in carrying out their respective responsibilities. To allow maximum utility and flexibility, these modeling and simulation environments will be constructed from affordable, reusable components interoperating through an open systems architecture.**

OBJs

1. **Common Technical Framework**
2. **Authoritative Representation Natural Environment**
3. **Authoritative Representation Systems**
4. **Authoritative Representation Human Behavior**
5. **Infrastructure to Meet Developer and End-User Needs**
6. **Share the Benefits**

DoD M&S Master Plan, October 1995**TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.**

VISION

- Empower DoD with modeling and simulation capabilities that effectively and efficiently support the full spectrum of the Department's activities and operations.
- A robust modeling and simulation (M&S) capability enables the Department to more effectively meet its operational and support objectives across the diverse activities of the services, combatant commands, and agencies. A defense-wide M&S management process encourages collaboration and facilitates the sharing of data across DoD components, while promoting interactions between DoD and other government agencies, international partners, industry, and academia.

Goals

1. Standards, architectures, networks and environments
2. Policies at the enterprise level
3. Management processes for models, simulations and data
4. Tools in the form of models, simulations, and authoritative data
5. People

DoD Memo: Strategic Vision for DoD Modeling and Simulation, 24 AUG 2007